

ABSTRACT

High yield ratio high-strength thin steel sheet superior in weldability and ductility characterized by;
5 being comprised of steel containing, by mass%,
C: over 0.030 to less than 0.10%, Si: 0.30 to 0.80%, Mn:
1.7 to 3.2%, P: 0.001 to 0.02%, S: 0.0001 to 0.006%, Al:
0.060% or less, N: 0.0001 to 0.0070%, containing further
Ti: 0.01 to 0.055%, Nb: 0.012 to 0.055%, Mo: 0.07 to
10 0.55%, B: 0.0005 to 0.0040%, and simultaneously
· satisfying $1.1 \leq 14x\text{Ti}(\%) + 20x\text{Nb}(\%) + 3x\text{Mo}(\%) + 300x\text{B}(\%) \leq 3.7$,
the balance comprised of iron and unavoidable impurities,
and
having a yield ratio of 0.64 to less than 0.92,
15 a $\text{TS} \times \text{El}$ of 3320 or more, an $\text{YR} \times \text{TS} \times \text{El}^{1/2}$ of 2320 or more,
and a maximum tensile strength (TS) of 780 MPa or more.

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